

Otago International Health Research Network Conference  
The Hunter Centre, Dunedin  
9 – 10 November 2009

## Conference Programme at a Glance

Monday 9 <sup>th</sup> November	
TIME	SESSION
<b>8.30am – 9.00am</b>	Registration and Welcome
<b>9.00am – 9.10am</b>	Opening Address <b>Prof Don Robertson</b>
<b>9.10am – 9.30am</b>	Introduction and Update on the Centre for International Health <b>Prof Philip Hill, Centre for International Health</b>
<b>9.30am – 9.50am</b>	Health aid and governance in developing countries <b>Prof David Fielding</b>
<b>9.50am – 10.00am</b>	Discussion
<b>10.00am – 10.30am</b>	<b>Morning Tea</b>
<b>10.30am – 10.45am</b>	“By women, for women, with women”: challenges of nutrition research in central India <b>Dr Sheila Skeaff</b>
<b>10.45am – 11.00am</b>	Can European based nutritional guidelines for the treatment of diabetes be translated into other settings? The Lifestyle Over and Above Drugs in Diabetes (LOADD) study <b>Dr Kirsten Coppell</b>
<b>11.00am – 11.15am</b>	Are breast-fed infants aged 9 to 11 months fed manufactured complementary foods (CFs) marketed in Asia likely to meet their estimated needs for “problem micronutrients”? <b>Michelle Gibbs</b>
<b>11.15am – 11.30am</b>	Combating anaemia and micronutrient deficiencies among young children in rural Cambodia through point of use fortification and nutrition education (Good Food for Children Study) <b>Dr Susan Jack</b>
<b>11.30am – 11.45am</b>	Health and diet at Nebira: A bioarchaeological perspective of prehistoric life on the south coast of Papua New Guinea <b>Rebecca Kinaston</b>
<b>11.45am – 12.15pm</b>	Discussion

Monday 9<sup>th</sup> November (continued)

TIME	SESSION
<b>12.15pm – 1.15pm</b>	<p><b>Lunch and Posters</b></p> <p>Poor dietary quality is associated with multi-micronutrient deficiencies during early childhood in Mongolia</p> <p><b>Rebecca Lander</b></p> <p>Zinc status of rural and tribal non-pregnant women of reproductive age in Ramtek Block, Nagpur district, Maharashtra state, India</p> <p><b>Catherine Landers</b></p> <p>Iodine status of non-pregnant women, pregnant women, and infants from Ramtek Block, Nagpur, India</p> <p><b>Kavitha Menon</b></p>
<b>1.15pm – 1.30pm</b>	<p>Mutton flaps in paradise: New Zealand trade affecting the health of Pacific Islanders</p> <p><b>George Thomson</b></p>
<b>1.30pm – 1.45pm</b>	<p>How to improve health and manage HIV/AIDS – lessons from Ajugunle, Lagos, Nigeria</p> <p><b>Assoc Prof Pat Shannon</b></p>
<b>1.45pm – 2.00pm</b>	<p>Access to essential medicines in Africa: Partnering with civil society</p> <p><b>Aarti Patel</b></p>
<b>2.00pm – 2.15pm</b>	<p>Progressing tobacco control in the Pacific: Key informant perspectives on implementing tobacco control in Niue</p> <p><b>Dr Michael Hale &amp; Dr Judith McCool</b></p>
<b>2.15pm – 2.45pm</b>	<p>Discussion</p>
<b>2.45pm – 3.15pm</b>	<p><b>Afternoon Tea</b></p>
<b>3.15pm – 3.30pm</b>	<p>Public health issues in post-tsunami Western Samoa</p> <p><b>Dr Faafetai Sopoaga &amp; Dr Clair Mills</b></p>
<b>3.30pm – 3.45pm</b>	<p>An injury prevention framework to address self-inflicted violence in developing countries</p> <p><b>Dr Shyamala Nada-Raja</b></p>
<b>3.45pm – 4.00pm</b>	<p>Unintentional injuries to children: A global perspective</p> <p><b>Dr Pauline Gulliver</b></p>
<b>4.00pm – 4.15pm</b>	<p>Medicines and primary health care services in the Mt Everest region of Nepal</p> <p><b>Dr Susan Heydon</b></p>
<b>4.15pm – 4.45pm</b>	<p>Discussion</p>
<b>5.15pm – 6.30pm</b>	<p>McAuley Oration: (Colquhoun Lecture Theatre, First Floor, Dunedin Hospital)</p> <p>Zinc deficiency: etiology, health consequences, and future solutions</p> <p><b>Prof Rosalind Gibson</b></p>
<b>7.30pm – late</b>	<p>Conference Dinner: TableSeven Cnr Hanover &amp; George Streets</p>

Tuesday 10th November	
TIME	SESSION
<b>9.00am – 9.45am</b>	A strategy for pneumonia clinical studies <b>Prof Richard Adegbola, Gates Foundation</b>
<b>9.45am – 10.15am</b>	Experience with Gates Projects and Discussion <b>Prof Philip Hill, Centre for International Health</b>
<b>10.15am – 10.45am</b>	Morning Tea
<b>10.45am – 11.00am</b>	NZAID Health Policy and Programmes <b>Christine Briasco, NZAID</b>
<b>11.00am – 11.15am</b>	Global health - Why New Zealand needs to be involved <b>Wendy Edgar, Ministry of Health</b>
<b>11.15am – 11.30am</b>	Ensuring food security in post-conflict Freetown, Sierra Leone: What role for urban and peri-urban agriculture? <b>Prof Tony Binns</b>
<b>11.30am – 11.45am</b>	The (re-)emergence of health in impact assessment practices: an international perspective <b>Prof Richard Morgan</b>
<b>11.45am – 12.00pm</b>	Truths of culture: The return of medical truth-telling in China <b>Assoc Prof Jing-Bao Nie</b>
<b>12.00pm – 12.15pm</b>	Discussion
<b>12.15pm – 1.15pm</b>	Lunch
<b>1.15pm – 1.30pm</b>	An update on tuberculosis research in Bandung Indonesia <b>Merrin Rutherford</b>
<b>1.30pm – 1.45pm</b>	Socio-economic Risk Factors for Childhood Pneumonia (SERF): a case-control study and semi-structured, open-ended interviews <b>Hai Sue Kang</b>
<b>1.45pm – 2.00pm</b>	A breath test for tuberculosis <b>Prof Stephen Chambers</b>
<b>2.00pm – 2.15pm</b>	Host genotype and susceptibility to infection <b>Prof Frank Griffin</b>
<b>2.15pm – 2.30pm</b>	The impact of organizational restructuring of the Ministry of Health on its performance: The case of Botswana <b>Onalenna Seitio-Kgokgue</b>
<b>2.30pm – 2.45pm</b>	The people of Teouma, Vanuatu: Quality of life in a 3000 year old community from the Pacific Islands <b>Dr Hallie Buckley</b>
<b>2.45pm – 3.00pm</b>	Building health research capacity in the developing Pacific <b>Dr Tamasailau Suaalii</b>
<b>3.00pm – 3.30pm</b>	Afternoon Tea
<b>3.30pm – 4.00pm</b>	Open Forum: The direction of international health research at Otago University
<b>4.00pm – 4.15pm</b>	Prizegiving and Closing

# Abstracts

(Where provided, and in presentation order)

Monday 9<sup>th</sup> November

Health aid and governance in developing countries

## David Fielding

Department of Economics, University of Otago, Dunedin, New Zealand  
david.fielding@otago.ac.nz

Despite anecdotal evidence that the quality of governance in recipient countries affects the allocation of international health aid, there is no quantitative evidence on the magnitude of this effect, or on which dimensions of governance influence donor decisions. We measure health aid flows over 1996-2006 for 131 aid recipients, matching aid data with measures of different dimensions of governance and a range of country-specific economic and health characteristics. Both corruption and political rights, but not civil rights, have a significant impact on aid. The sensitivity of aid to corruption might be explained by a perception that poor institutions make health aid inefficient. However, even when we allow for variations in the level of corruption, political rights still have a significant impact on aid allocation. This suggests that health aid is sometimes used as an incentive to reward political reforms, even though (as we find) such aid is not fungible.

"By women, for women, with women": Challenges of nutrition research in central India

**Sheila A Skeaff**<sup>1</sup>, KCS Menon<sup>1</sup>, EL Ferguson<sup>2</sup>, CD Thomson<sup>1</sup>

<sup>1</sup>Department of Human Nutrition, University of Otago, New Zealand

<sup>2</sup>London School of Hygiene and Tropical Medicine, London, England

[Sheila.Skeaff@otago.ac.nz](mailto:Sheila.Skeaff@otago.ac.nz)

Current public health strategies in India typically focus on one micronutrient but single micronutrient deficiencies rarely occur in isolation, especially in people from poorer socio-economic groups in developing countries who typically consume nutritionally poor diets based on cereals and legumes, with little animal foods, fruits and green leafy vegetables. There is a dearth of information on multiple micronutrient deficiencies in women of reproductive age in India, particularly in rural and tribal areas. Furthermore, national surveys have been conducted on women aged 15 to 45 years despite most childbearing occurring in Indian women aged 15 and 30 years. The original intention of this research was to conduct a randomised, controlled, micronutrient intervention trial of pregnant Indian women, but this was not feasible. We have, however, been able to assess the micronutrient status of rural and tribal 18 to 30 year old non-pregnant and pregnant women living in Ramtek block, Nagpur, Maharashtra state, India. As expected given their dietary patterns, non-pregnant women had poor iron, zinc and vitamin B12 status, yet had good iodine status. Conversely, pregnant women from the same area had poor iodine status, but their zinc and iron status is currently unknown. These preliminary data suggest that women of reproductive age living in this part of central India require nutrition intervention to improve their health and that of their offspring.

## Can European based nutritional guidelines for the treatment of diabetes be translated into other settings? The Lifestyle Over and Above Drugs in Diabetes (LOADD) study

**Kirsten J Coppell**<sup>1</sup>, Minako Kataoka<sup>1</sup>, Alex W Chisholm<sup>2</sup>, Sheila M Williams<sup>3</sup>, Sue M Vorgers<sup>2</sup>, Jim I Mann<sup>1,2</sup>

<sup>1</sup>Edgar National Centre for Diabetes Research, Department of Medical and Surgical Sciences, <sup>2</sup>Department of Human Nutrition, and <sup>3</sup>Department of Preventive and Social Medicine, University of Otago, Dunedin, New Zealand.

kirsten.coppell@otago.ac.nz

**Aim:** We aimed to determine the extent to which the translation of European based dietary intervention guidelines can influence glycaemic control and cardiovascular risk factors in a multicultural group of patients still hyperglycaemic despite optimised drug treatment according to current guidelines.

**Methods:** In this 6-month RCT, individualised dietary advice, provided by a dietician, was based on the nutritional recommendations of the European Association of the Study of Diabetes (EASD) which permit a wide range of macronutrient intakes provided food choices and energy intake are appropriate. Translation and implementation of the guidelines involved an assessment of individuals' sociocultural context. Primary outcome measure on which this trial was powered was HbA1c.

**Results:** 94 individuals from 7 different cultural groups completed the study. Following adjustment for baseline values, sex and age the difference in HbA1c between intervention and control groups at six months (−0.6%, CI: −0.9, −0.2) was highly significant ( $p=0.006$ ). Levels of almost all the secondary outcomes decreased on the intervention diet, but differences between the groups did not achieve conventional levels of statistical significance.

**Conclusion:** Amongst a multicultural group, intensive dietary advice as recommended by the EASD has the potential to appreciably improve glycaemic control in patients with T2DM and unsatisfactory HbA1c despite maximum treated hypoglycaemic drug treatment.

## Are breast-fed infants aged 9 to 11 months fed manufactured complementary foods (CFs) marketed in Asia likely to meet their estimated needs for "problem micronutrients"?

**Michelle Gibbs**<sup>1</sup>, KB Bailey<sup>1</sup>, R Lander<sup>1</sup>, U Fahmida<sup>2</sup>, L Perlas<sup>3</sup>, P Winichagoon<sup>4</sup>, RS Gibson<sup>1</sup>

<sup>1</sup>University of Otago, New Zealand; <sup>2</sup>SEAMEO-TROPMED, University of Indonesia, Indonesia; <sup>3</sup>Food and Nutrition Research Institute, Philippines; <sup>4</sup>Institute of Nutrition, Mahidol University, Thailand  
michegibbs@gmail.com

Iron, zinc and calcium in CFs are defined as problem micronutrients by WHO based on the large discrepancy between their content in CFs and the amount required by the breast-fed infant. The cereal and legume-based porridges commonly consumed by Asian infants often contain high levels of phytate, a potent inhibitor of mineral absorption. These concerns have led manufacturers to fortify CFs with these three micronutrients. We have analyzed the iron, zinc, calcium, and phytate content of a market-survey of 33 commercially produced CFs sold in Indonesia, the Philippines, Thailand, China, and Mongolia, of which 29 were fortified with at least one of these three micronutrients. Assuming breast-fed infants aged 9–11 months consume 40 g /d (dry weight) CF, we calculated intakes of iron, zinc, and calcium from the analyzed CFs for comparison with World Health Organization (WHO) estimated needs. Although 29 of the CFs were fortified, none met the estimated needs for breast-fed infants 9–11 months for all three problem micronutrients, and only three of the CF's met

the estimated needs for calcium alone. Manufacturers need to fortify CFs with appropriate levels of fortificants to ensure CFs meet the WHO estimated needs for these three problem micronutrients.

### Combating anaemia and micronutrient deficiencies among young children in rural Cambodia through point of use fortification and nutrition education (Good Food for Children Study)

**Susan Jack**, Dr Ou Kevanna,  
Good Food for Children Steering Committee, Phnom Penh, Cambodia  
jacks@wpro.who.int

**Rationale & Objectives** – Micronutrient deficiencies and malnutrition are widespread amongst children in Cambodia. Stunting is very high and appears to be associated with zinc deficiency. A previous efficacy study using sprinkles was effective in reducing anaemia. This study will determine the value of adding sprinkles containing increased zinc to existing, strengthened IYCF education interventions, in terms of reducing anaemia, deficiencies of zinc, iron and vitamin A, and improving growth in young children.

**Materials & Methods** – Cluster randomized effectiveness trial implemented through existing Government health services in one rural district of Cambodia with infants aged 6 mo receiving from 6 to 12 months IYCF education + sprinkles versus IYCF education alone. All children in the district are being enrolled on a rolling recruitment basis as they turn 6 months to simulate real time programming, with a large sub-sample followed up to determine if anaemia, deficiencies of zinc, iron, vitamin A, stunting and wasting are decreased at age 12 months, and whether reductions are sustained at 18 months.

**Results & Findings** – Preliminary results on anaemia and anthropometry will be presented.

### Health and diet at Nebira: A bioarchaeological perspective of prehistoric life on the south coast of Papua New Guinea

**Rebecca Kinaston**<sup>1</sup>, Hallie Buckley<sup>1</sup> and Ken Neal<sup>2</sup>  
Department of Anatomy and Structural Biology, University of Otago<sup>1</sup>, and Isolytix<sup>2</sup>, Dunedin, New Zealand.  
rebecca.kinaston@gmail.com

The prehistory of Papua New Guinea (PNG) is recognised for its cultural, biological and linguistic diversity. However, few prehistoric cemeteries have been found in PNG leading to gaps in our understanding of prehistoric health, disease and diet in this area of the world. The site of Nebira is one of the only large prehistoric settlements to be found in the region of the South Coast, PNG and the presence of a prehistoric (1000-400 BP) burial ground at Nebira makes this site exceptional. We use stable isotope analysis for dietary reconstruction in conjunction with paleopathological and growth evaluations of the individuals interred at Nebira to investigate:

- 1) dental evidence of diet (caries, periodontal disease, antemortem tooth loss and calculus);
- 2) non-specific stress indicators (linear enamel hypoplasia, cribra orbitalia and porotic hyperostosis);
- 3) growth (adult stature and subadult long bone lengths); and
- 4) the potential consequences of diet on skeletal and dental health and growth. Carbon, nitrogen and sulphur stable isotope analysis of bone collagen suggested the diet of the inhabitants of Nebira was predominately terrestrial and low in protein with no statistically significant differences between males and females. The patterns of dental health and a high prevalence of non-specific stress indicators and short stature support the assumption that this diet could have affected the health and growth of these people. The lack of sexual differences in diet suggests that limited or no preferential food allocation to males or females occurred in this

society, at least with regard to protein foods. Male and female health and growth patterns were also similar, suggesting the effect of diet and other potential stresses were comparable between these two groups.

Poor dietary quality is associated with multi-micronutrient deficiencies during early childhood in Mongolia  
(Poster)

**Rebecca Lander**<sup>1</sup>, Ts Enkhjargal<sup>2</sup>, J Batjargal<sup>2</sup>, K Bailey<sup>1</sup>, RS Gibson<sup>1</sup>

<sup>1</sup>Department of Human Nutrition, University of Otago, New Zealand, and <sup>2</sup>Public Health Institute, Ulaanbaatar, Mongolia.

**Rationale:** Multi-micronutrient (MN) deficiencies persist throughout early childhood in Mongolia despite ongoing interventions to prevent them. Whether they are associated with complementary foods (CFs) inadequate in quality or quantity is uncertain.

**Objectives:** We have investigated dietary inadequacies and biochemical deficiencies of MNs among young Mongolian breast-fed children.

**Methods:** In a cross-sectional survey, we collected data on socio-demographic status, anthropometry, and nutrient intakes from CFs via in-home 24-hr recalls from 139 children aged 6 to 23 mos living in Ulaanbaatar and 4 rural capitols. Haemoglobin, serum ferritin, retinol, zinc, and 25-hydroxyvitamin D were also determined.

**Results:** Stunting was 11%; 3% were underweight; none were wasted. Energy intakes from CFs met WHO estimated needs, but major shortfalls existed for calcium, iron, zinc, vitamins A and C: median densities were < 80% WHO desired levels. Density deficits were accompanied by a high prevalence of anaemia, and biochemical iron, zinc, retinol, and vitamin D deficiencies.

**Conclusion:** Dietary quality rather than quantity is compromised during early childhood in Mongolia leading to multi-micronutrient deficiencies. Enriching refined wheat-based CFs with affordable animal-source foods, and pro-vitamin A and C-rich fruits and vegetables could be a sustainable strategy to combat MN deficiencies. Funded by WHO, World Vision, UNICEF Mongolia, and University of Otago.

Zinc status of rural and tribal non-pregnant women of reproductive age in Ramtek Block, Nagpur district, Maharashtra state, India  
(Poster)

**Catherine A Landers**, Menon K, Skeaff SA, Ferguson EL, Thomson CD, Zodpey S, Toteja GS, Gray AR, Saraf A, Das PK, Pandav CS

Human Nutrition, University of Otago  
cathlanders@gmail.com

The prevalence of inadequate zinc status in women of reproductive age in India is unclear. Furthermore, little data is available to compare zinc status of women from tribal and rural communities. The aim of the present study was to assess and compare zinc status of non-pregnant tribal and rural women aged 18-30 years and to identify dietary factors associated with serum zinc. A cross-sectional survey of 109 women was conducted in Ramtek Block, Nagpur district, Maharashtra state, India using a proportionate to population size sampling (PPS) method. Socio-demographic, anthropometric, clinical, dietary data (interactive 24-hour dietary recall) and biochemical data (serum zinc and C-reactive protein) was obtained. Serum zinc concentration was (mean± SD)

10.7±1.6 µmol/L, where 57% of tribal women had biochemical zinc deficiency <10.7µmol/L compared to 40% of rural women. Dietary zinc intake was (mean ± SD) 5.4±1.8 mg/d and 78% of women had a dietary zinc intake below the Estimated Average Requirement (EAR) of 9mg/day and 7mg/day for women aged 14-18 years and ≥ 19 years, respectively. A low dietary zinc intake may account for the high prevalence of inadequate zinc status in women of reproductive age living in Ramtek Block, Nagpur district, Maharashtra state, India.

Iodine status of non-pregnant women, pregnant women, and infants from Ramtek Block, Nagpur, India (Poster)

**Kavitha Menon**<sup>1</sup>, Skeaff SA<sup>1</sup>, Thomson CD<sup>1</sup>, Ferguson EL<sup>2</sup>, Zodpey S<sup>3</sup>, Saraf A<sup>3</sup>, Das PK<sup>4</sup>, Pandav CS<sup>5</sup>,

<sup>1</sup>Dept. of Human Nutrition, University of Otago, Dunedin, New Zealand

<sup>2</sup>London School of Hygiene and Tropical Medicine, London, England

<sup>3</sup>Public Health Foundation of India, New Delhi

<sup>4</sup>Public Health Foundation of India, New Delhi Health and Family Welfare Training Centre, Nagpur

<sup>5</sup>All India Institute of Medical Sciences, New Delhi, India

kavi\_menon3@yahoo.com

As part of two studies investigating the micronutrient status of women living in Ramtek Block, Nagpur, casual urine samples and salt samples were collected from participants. The first study conducted in 2007 used a proportionate-to-population sampling method to recruit 109 non-pregnant women; their median urinary iodine concentration (MUIC) was 215 µg/L. The second study conducted in 2008 recruited 217 pregnant women in the second trimester of pregnancy (i.e. 12-20 weeks), and followed them into their third trimester (i.e. 32 weeks); their MUIC in the second trimester was 105 µg/L and in the third trimester was 72 µg/L, well below the 150 µg/L cut-off recommended by WHO. Urine samples were also collected from the mother's 3-week old infants, who had a MUIC of 168 µg/L. The mean iodine concentration of salt obtained from the households of these women ranged from 21.2 to 27.6 ppm; >65% of the salt collected was adequately iodised (i.e. > 15 ppm). It is of concern that pregnant women living in Ramtek are iodine deficient as iodine is needed for normal growth and development of the foetus, particularly of the brain. The causes of iodine deficiency in pregnant women in Ramtek Block must be elucidated.

Mutton flaps in paradise: New Zealand trade affecting the health of Pacific Islanders

**George Thomson**, Sally Easter

Public Health, University of Otago, Wellington

george.thomson@otago.ac.nz

### Aim

To investigate the New Zealand exports over the last 60 years of some health-relevant foods to Fiji, Samoa, Tonga and Cook Islands.

### Methods

Where available, published data was collected for New Zealand food exports to the Fiji, Samoa, Tonga and Cook Islands, from Statistics New Zealand and the United Nations Food and Agriculture Organisation.



## Results

During much of 1949-2005, New Zealand significantly increased its export of meat, butter and refined sugar to Fiji, Samoa and Tonga. New Zealand has exported an average 30 kg/person/year of meat to Tonga since 1979, and an average 23 kg of sugar/person/year to the Cook Islands since 1984. During 2002-2007, New Zealand mutton flap exports to Tonga increased by over 300%. This resulted in a doubling of the proportion of all Tongan meat imports that were mutton flaps.

## Conclusions

The results are consistent with the hypothesis that food exports from New Zealand may have contributed to the increase in non-communicable diseases (NCDs) in at least Tonga and the Cook Islands. New Zealand should consider what actions it may take to influence the composition of, and trade in, such products, and to increase health promotion aid to the area. Structural changes (e.g., to trade agreements) must also be considered.

## How to improve health and manage HIV/AIDS – lessons from Ajugunle, Lagos, Nigeria

**Pat Shannon**<sup>1</sup> and Tony Binns<sup>2</sup>

<sup>1</sup>Social Work and Community Development, <sup>2</sup>Department of Geography, University of Otago, Dunedin  
pat.shannon@otago.ac.nz

While social science is often able to contribute to what needs to be achieved for progress on health, it sometimes seems unable to indicate how such changes might be achieved. Based upon field research in Ajegunle, a poor suburb of Lagos, Nigeria (Iyani, 2007), the paper suggests that effective HIV/AIDS prevention requires much more than simple IEC (information/education/communication) strategies to combat ignorance. We propose developing community participation based upon a detailed assessment of community strengths and community development strategies. This requires valuing the knowledges and capacities of local people and building on their resources - including their networks, relationships and trust - in an interactive community-based agenda. Such an approach, supported by a strategic model of change, could begin to tackle at the grassroots some of the key structural issues, especially conflict and poverty, that exacerbate HIV/AIDS and other pandemics, and are not susceptible to purely medical solutions.

## Access to essential medicines in Africa: Partnering with civil society

**Aarti Patel**, Patrick Mubangazi, Christa Cepuch  
School of Pharmacy, University of Otago, Dunedin  
aarti.patel@otago.ac.nz

It is estimated that approximately 1.2 billion people remain without access to essential medicines, especially in Asia and Africa [1]. National medicines policies (NMPs) provide the policy framework for improving access to medicines [2]. NMP implementation tends to be driven by Health Ministries, with technical input from the WHO. Recently, in Africa, donor driven initiatives are resulting in collaborative implementation projects that increasingly involve civil society partners – one example is the WHO-Health Action International-Africa (HAI-A) collaboration.

**Method:** The WHO-HAI-A collaboration, driven by the UK Department for International Development (DFID), began in 2000. Nationally, the project is implemented through country working groups (CWGs). Initial project activities of CWGs have been to undertake medicine pricing surveys. These surveys use a tool

developed by the WHO and HAI to measure and monitor medicine prices in the developing world. This tool has provided the WHO-HAI-A collaboration an initial opportunity to start building partnerships by exploring affordability of medicines.

**Results:** Three countries are part of the WHO-HAI-A collaboration; all have completed medicine pricing surveys. Findings have been used by civil society partners to undertake advocacy campaigns to address issues on intellectual property, increased use of generic medicines, availability and affordability of essential medicines.

**Conclusion:** Collaborative projects between civil society and technical agencies/governments are providing innovative partnerships towards increasing access to essential medicines in Africa.

1. WHO, *The World Medicines Situation* WHO, Editor. 2004, WHO: Geneva.
2. WHO, *How to develop and implement a national drug policy*. 2001a, Geneva: WHO.

### Progressing tobacco control in the Pacific: Key informant perspectives on implementing tobacco control in Niue

**Dr Michael Hale, Dr Judith McCool,** Dr Vili Nosa, Dr Chris Bullen

Pacific Health, School of Population Health, Faculty of Medical & Health Sciences, University of Auckland.  
michael.hale@mac.com, j.mccool@auckland.ac.nz

#### **Background and aims:**

Tobacco smoking is a significant public health issue in Niue, a small Western Pacific nation where 31% of males and 16% of females smoke and smoking initiation among young people is high. There is evidence of political support for stronger tobacco control measures in Niue with ratification of the Framework Convention on Tobacco Control (FCTC) in 2005 and the Tobacco Control Bill 2007 currently in discussion. However, more information is needed about how best to implement tobacco control measures in Niue, in particular the optimal order, pace and resource implications of such steps. The aim of this research was to identify key contextual factors for progressing effective tobacco control in Niue and to use these to produce guidelines and recommendations for implementing successful tobacco control interventions.

**Methods:** Twelve in-depth interviews were conducted with health, tobacco control and public health professionals selected purposively from both Niue and New Zealand. A semi-structured interview format was utilised and a qualitative thematic analysis undertaken to explore common and divergent viewpoints.

**Results:** Significant progress in tobacco control is feasible in Niue, but additional technical assistance will be needed as there is very limited capacity to undertake all that needs to be done. Key steps will include developing a comprehensive tobacco control plan which will adopt a health promotion paradigm. This will include the building of strong cross-sectoral political support along with community engagement with the issue, to ensure local contextual knowledge guides the development and shape of interventions. Capacity building throughout the intervention implementation and monitoring will be vital.

**Conclusion:** A comprehensive health promotion approach that draws on outside technical assistance for support and capacity when needed is recommended to advance tobacco control in Niue.

**Faafetai Sopoaga<sup>1</sup>, Clair Mills<sup>2</sup>**, Andrew Peteru<sup>3</sup>, Saine Va'ai<sup>3</sup>, Leilani Matalavea<sup>3</sup>

<sup>1</sup>University of Otago, <sup>2</sup>University of Auckland, <sup>3</sup>Ministry of Health Western Samoa  
tai.sopoaga@otago.ac.nz, cf.mills@auckland.ac.nz

**Background:** Major natural disasters pose challenges for public health. After the devastating tsunami of September 29<sup>th</sup>, 2009, which affected primarily the south and eastern coasts of Upolu in Western Samoa, thousands of people were displaced inland. In addition to the human toll of death and trauma, infrastructure damage was considerable, and many families lost their livelihoods. New Zealand-based public health staff were involved in supporting the Samoa Ministry of Health public health team in the initial weeks. The key public health challenges and interventions that were implemented in the first weeks post-tsunami will be described.

**Methods:** The presentation will outline the key public health issues identified by the Ministry of Health team in Samoa, and the interventions implemented during the first weeks post-tsunami. Some of the challenges faced - from those during the immediate response phase to those in the first steps of recovery - will be described, including some of the unique features that were present in Samoa.

**Results:** Findings from two of the key public health actions post-tsunami (a rapid health assessment and the enhanced surveillance system) will be presented, and other public health interventions described. In addition, insights and lessons learned from the post-tsunami experience, including the needs for appropriate assessment tools and context-adapted surveillance approaches will be shared.

**Conclusions:** Despite some limitations, the post-tsunami response by public health was effective and timely. Lessons drawn from the public health experience in Western Samoa may be relevant for other island states in the Pacific.

**Shyamala Nada-Raja**

Injury Prevention Research Unit, Dunedin School of Medicine  
shyamala.nada-rajaa@ipru.otago.ac.nz

Intentional injury comprising self-harm, suicidal behaviours and violence directed towards others are major public health problems in New Zealand and worldwide. These types of injury are in the top 10 leading causes of injury death for the 15-44 year age group and are strongly related to ill-health and disability. Developing countries in particular experience a disproportionate number of deaths and injuries as a result of violence in its many forms. The presentation will provide an overview of self-harm in developing countries based on the international literature and describe the application of an injury prevention framework to reduce self-harm in developing countries. Lessons learned in this regard from applying a similar framework to prevent self-harm by certain methods in New Zealand will also be presented to promote discussion that will focus on identifying promising interventions that might help us to address violence and its consequences in developing countries.

## Unintentional injuries to children: A global perspective

### **Pauline Gulliver**

Injury Prevention Research Unit, University of Otago, Dunedin  
pauline.gulliver@ipru.otago.ac.nz

New Zealand, like much of the developed and developing world, has injury as one of the leading causes of preventable death. On a global perspective, unintentional injury is the leading cause of death for children aged 9-18 years. While 95% of unintentional child injuries occur in low income countries, in high income countries unintentional injuries account for 40% of all child deaths.

There are strong similarities between the causes of child fatal and non-fatal unintentional injury in low, middle and high income countries. For the main causes of unintentional injury, there are proven and well established preventive measures. Based on the World Report on Child Injury Prevention and the New Zealand Injury Prevention Strategy Chartbooks, this presentation will highlight the similarities in the causes of unintentional child injury at an international level. The possibilities of implementing proven injury prevention strategies in low and middle income countries and experiences as reported in the international academic literature will also be discussed.

## Medicines and primary health care services in the Mt Everest region of Nepal

### **Susan Heydon**

School of Pharmacy, University of Otago, Dunedin  
susan.heydon@otago.ac.nz

A key element of the primary health care approach is ensuring equitable access to affordable essential medicines. This paper uses a study of Khunde Hospital between 1966 and 1998 to explore the role of medicines in the introduction of 'modern' medicine to the Mt Everest region of Nepal.

Tuesday 10<sup>th</sup> November

Global health - Why New Zealand needs to be involved

**Wendy Edgar**

Global Health, Ministry of Health, Wellington  
Wendy\_Edgar@moh.govt.nz

The New Zealand Ministry of Health has relationships with the UN, World Health Organisation, OECD, APEC, Pacific Health Ministers and Australian Health Ministers. We are currently also a member of the WHO Executive Board. This talk will explore those global relationships, the opportunities and the challenges involved, and our contracts with the Universities of Otago and Auckland for international health research to support the New Zealand role at the WHO Executive Board.

Ensuring food security in post-conflict Freetown, Sierra Leone: What role for urban and peri-urban agriculture?

**Tony Binns**

Department of Geography, University of Otago, Dunedin,  
jab@geography.otago.ac.nz

Sierra Leone is currently regarded as the world's poorest country with a range of very weak development indicators. During the country's decade-long civil war in the 1990s, food production became severely dislocated and, in the aftermath of the protracted conflict, the state of the agricultural sector has become a major concern to government and non-government development agencies. Focusing on the question of urban food security in the country's capital city, Freetown, this paper examines the incidence, dynamics and significance of urban and peri-urban agriculture (UPA) amongst households, at a crucial point in Sierra Leone's post-conflict reconstruction phase. Drawing on recent field-based data collected over a 15 month period in Greater Freetown, the paper contributes to discussion and growing debate that concerns how urban planning and development can be reconciled with the promotion of an 'enabling environment', in which UPA is encouraged and supported. The paper argues that in the case of Freetown, a detailed evaluation of UPA is urgently needed in order to determine how agricultural activities can fit in with urban structure, urban problems and the lifestyles and livelihoods of a wide range of actors in and around Freetown. The paper concludes that not only is UPA a vital element in ensuring household food security, but it could also play a fundamental role in safeguarding the urban food continuum and promoting more sustainable urbanization in the post-conflict period and beyond.

The (re-)emergence of health in impact assessment practices: an international perspective

**Richard Morgan**

Department of Geography, University of Otago, Dunedin  
rkm@geography.otago.ac.nz

Impact assessment is a well established method for investigating the unanticipated consequences of proposed policies, plan or projects for people and their environment. Various forms of IA are practised, depending on context, especially ecological, social, cultural, strategic assessment, cumulative effects assessment. While health

impacts have not been ignored, generally they have not been seen as a priority in most IA activities around the world. Since the mid 1990s however, *health impact assessment* has come to the fore, riding the public health/health promotion wave.

In this presentation I provide a brief overview of the development of HIA as an international movement in recent years, and focus on a number of issues that will need closer attention if HIA is to succeed, especially in developing countries. What is its purpose? How is it being institutionalised? Is there adequate capacity? What are the major impediments to good practice? How does it relate to other forms of impact assessment?

## Truths of culture: The return of medical truth-telling in China

### **Jing-Bao Nie**

Bioethics Centre, University of Otago, Dunedin

jing-bao.nie@stonebow.otago.ac.nz

Arresting cultural differences in health care can be seriously misinterpreted and misused. A popular “cultural difference” view has been developed from acknowledging that—in sharp contrast to Western practice—medical professionals in China and some other non-Western societies customarily withhold from patients crucial medical information about terminal illness. It characterizes nondisclosure or indirect disclosure through relatives as the cultural norm in China and insists that such social practice be maintained in order to respect perceived cultural differences. However plausible it appears to be, the cultural difference view is fundamentally flawed on both the empirical and normative levels. It stereotypes historical and socio-cultural reality, including the role of the family in both China and the West, and obscures the ethical problems involved in nondisclosure and lying, and has thus hampered effective cross-cultural understanding. It ignores the fact that China has a well-established historical tradition of direct medical disclosure and that the great majority of Chinese patients would prefer to know the truth about their condition. It is time for China to reform the current dominant practice and return to the old but long-forgotten Chinese way of truth-telling. As for cross-cultural bioethics, it is imperative to avoid such habits of thought as minimising the diversity and complexity of a given culture, treating official or mainstream values as the only legitimate cultural norms, dichotomizing different cultures (ours vs. the Other), and acquiescing in the tyranny of existing socio-cultural practices over ethics and morality.

## An update on Tuberculosis Research in Bandung Indonesia

### **Merrin Rutherford**

Centre for International Health, University of Otago, Dunedin

merrin.rutherford@gmail.com

Indonesia has the second highest case load of TB in South East Asia. Reduction of TB rates requires improved treatment and prevention strategies which are evidence based. In August 2008 a tuberculosis research programme with research primarily focused in an outpatients clinic in Bandung Indonesia was established through collaboration between The Centre for International Health-University of Otago and the Health Research Unit -University of Padjadjaran.

The programme focuses on high quality, setting relevant research which leads to meaningful interventions and can translate directly into policy. Capacity building to encourage a culture of research and to improve international competitiveness is also a priority.

Here we report on the: progress and acceptability of the programme; preliminary findings of the first research project which evaluates the Quantiferon-Gold, Interferon-Gamma ELISA diagnostic test for latent TB in child case contacts; establishment of interlocking studies and directions for new research.

## Socio-economic Risk Factors for Childhood Pneumonia (SERF): a case-control study and semi-structured, open-ended interviews

### **Kang Hai Sue**

Otago Medical School / Medical Research Council (MRC), Christchurch  
haisuekang@gmail.com

**Objective:** To investigate whether socioeconomic factors such as lack of maternal education, lack of availability of someone to assist with domestic duties, and lack of caregivers' financial decision-making power influence the risk of childhood pneumonia either in conjunction with, or independent of biological and environmental factors previously identified as risk factors.

**Methods:** The case-control study was conducted in Basse Health and Demographic Surveillance System (BHDSS) area, Medical Research Council (UK) The Gambia. Seven trained MRC fieldworkers administered standardized questionnaires to caregivers of cases (n=220) and controls (n=440) in their local languages. Cases were children aged 2 to 59 months who were resident in BHDSS area and enrolled in Pneumococcal Surveillance Program (PSP) with radiological-confirmed pneumonia between May and July 2009. For each case, five age-matched controls were identified from the BHDSS (+/- 1 month), and the first two eligible controls without signs of respiratory illness were recruited. Using preliminary findings on three variables- age and ethnicity of child, and time taken to reach health centre of choice- a subset of caregivers (n=24) was selected for semi-structured interviews. These interviews are being conducted in Mandinka, Fula, or Serehule, and will be translated into English as close to verbatim as possible for manual content analysis.

**Findings:** At the time of writing (end-August), caregivers of all cases (n=54) enrolled in PSP in May 2009 had been interviewed, along with some of their age-matched controls (n=56). Preliminary findings show that 43% (n=23) of cases were Serehule, 28% (n=15) Mandinka, and 22% (n=12) Fula. Overall, 72% (n=80) lived within 60 minutes to health centre of choice, and 5% (n=4) lived more than two hours from health centre of choice; of cases, 65% (n=35) lived within 60 minutes to health centre of choice, and 6% lived more than two hours from health centre of choice. 35% (n=19) of cases were aged less than 12 months. At the time of writing, qualitative work had not yet begun.

## A breath test for tuberculosis

**Stephen T Chambers**, Mona Syhre, Laurens Manning, Paul Harino

Department of Pathology, University of Otago, Christchurch  
steve.chambers@cdhb.govt.nz

Recent figures show that tuberculosis (TB) is advancing and killing more than 2 million people annually, yet no breakthrough in rapid diagnostics is in sight. Volatile metabolites of Mycobacterium tuberculosis (MTB) may provide just that. It is well established that MTB produces nicotinic acid in vitro. We have converted the free acid into methyl nicotinate and detected statistically significant differences in the breath of smear positive patients compared with healthy (smear negative) subjects.

**Onalenna Seitio-Kgokgwe**

Centre for International Health, University of Otago  
oseitio@gmail.com

Many health systems particularly in developing countries have been found to suffer from inefficiencies, inequitable resource allocation, declining quality and a demoralized workforce. Consequently, countries are trying different policy interventions and management tools to improve performance of their systems. The Ministry of Health –Botswana undertook review of its organizational structure with the aim of improving corporate performance. Although the restructuring process started in 2002, very little is known about how the changes are affecting the performance of the ministry. This study is therefore designed to assess the impact of this restructuring on the ministry's performance of four key functions which are: stewardship/leadership, financing, resource generation and allocation and service provision. Using the World Health Organization Health System Performance Assessment Framework as a conceptual framework, and drawing from the experience of other countries and organizations, indicators have been developed and will be used to compare the ministry's performance before and after restructuring. The study uses mixed research approaches. Published and unpublished documents will be reviewed. Key informant interviews will be conducted among policymakers, senior staff in the Ministry of Health and other stakeholder organizations. Managers and health workers in all hospitals under direct control of the ministry will be surveyed. Focus group discussion will be conducted with middle managers in two referral hospitals. Quantitative data will be analyzed using descriptive and inferential statistical methods. Content and thematic analysis will be used for qualitative data.

**Hallie R Buckley**

Department of Anatomy and Structural Biology, University of Otago  
hallie.buckley@stonebow.otago.ac.nz

The Lapita-associated cemetery site of Teouma, Efate Island, Vanuatu, has provided researchers with a unique opportunity to begin to understand aspects of the quality of life of these people at a community level. There have been excavations of the cemetery site in 2004-2006 and 2008-2009. To date, a total of 60 inhumations consisting of both adults and subadults have been excavated. This presentation will outline the findings on health and disease from the human skeletal remains excavated in the first three field seasons. Field observations of health and disease from the recent excavation in 2008-9 are also discussed. The macroscopic findings on health and disease on the first three field seasons skeletal remains indicate some chronic stress during childhood affecting growth, poor dental health, and heavy work loads in both sexes. Existing dietary isotope data and variation in burial treatment within the cemetery will also be discussed in relation to the macroscopic data on health and disease.



**Tamasailau Suaalii**

Centre for International Health, University of Otago  
s.suaalii@auckland.ac.nz

Building local health research capacity in the developing Pacific requires an understanding of Pacific social hierarchies and learning cultures as much as health behaviours and information systems. This presentation reflects on ten months of health research capacity building work in Samoa, outlines the vision for this work and discusses key initiatives.